~ sustainable urbanism ~

Watershed-based Planning Strategies for Ventura County

reigning in the rain workshop
ventura CA
april 08

clark anderson
local government commission

We are growing...

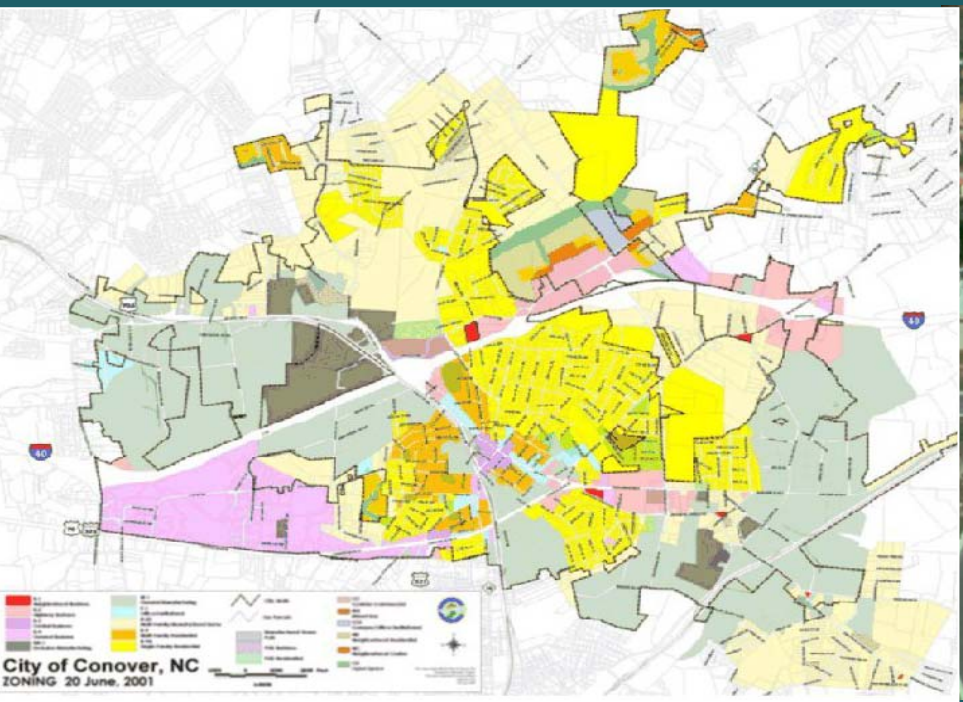
- *Statewide: 50 million people by 2032*
- *LA: 3.5 million new residents by 2050 = total of 13 million*
- *Ventura: ~ 500,000 new residents from 2000 to 2050*
- *Many issues to address: Where will those people live? What will they drink? Where will they work?*
- *From the watershed's view, how and where we grow are key*

Creating Lots of Impervious Surfaces

…and Losing the “Good Stuff”

Why are we growing like this?

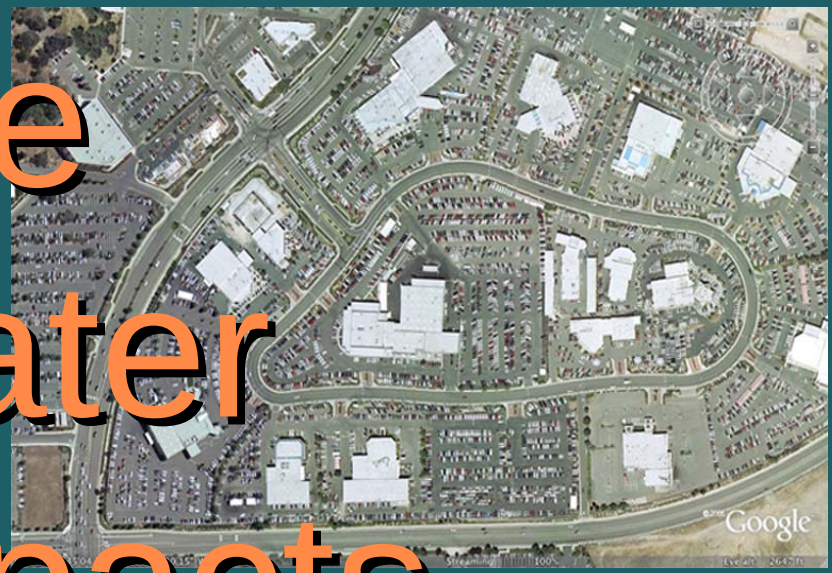
We are getting what we plan for…

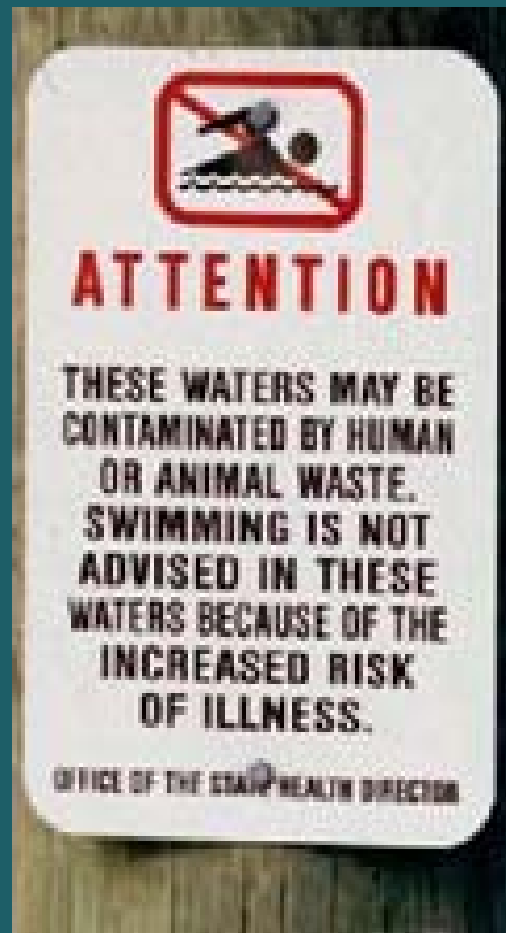


Conventional development is the result of conventional planning policies (zoning and ordinances)

Conventional land use policies are driving inefficient development patterns creating more impervious cover and replacing more natural land.

The Water Impacts





The Ahwahnee Water Principles

Smart Location, Efficient Development Patterns, Compact Community Design




Preserve and Restore Natural Infrastructure




Sustainable Site Design, Green Infrastructure





Application: Ventura Project

Watershed-based Planning Strategies

Ventura's Planning Context

- County + 10 Cities
- History of Growth Management
  - Guidelines + SOAR
- Distinct Cities
  - Mix of Urban + Ag

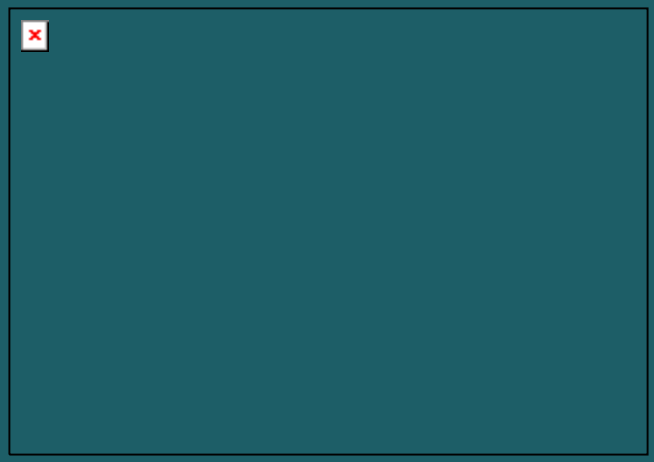
Who's involved

- County + All 10 Cities
- LA Regional Water Board
- Environmental Organizations
- Building Industry Association

a convergence of ideas

Smart Growth + New Urbanism + Green Design

(Location, Form and Design)



Many Issues to Address

Our Ecological footprint has many toes - all important….

- ***Landscape***
- ***Water***
- ***Energy***
- ***Air***
- ***Climate***
- ***Social***

Integrated planning and design must be just that or else you might stub a toe….

Goals

Conserve Natural Infrasturcture – Preserve and enhance areas that provide ecological services, create efficient development patterns, and encourage good community form.

Reduce the Overall Development Footprint – Accommodate growth in efficient development patterns and compact form to minimize watershed-scale impervious cover and conserve land.

Minimize Development Impacts – Design development to prevent and minimize the impacts of the built environment, and supports compact community form and development patterns.

Overarching Themes

- Natural Infrastructure
- The Importance of Scale
- Development Context
- The Development Footprint
- The Transportation Footprint
- Orchestrating the Elements

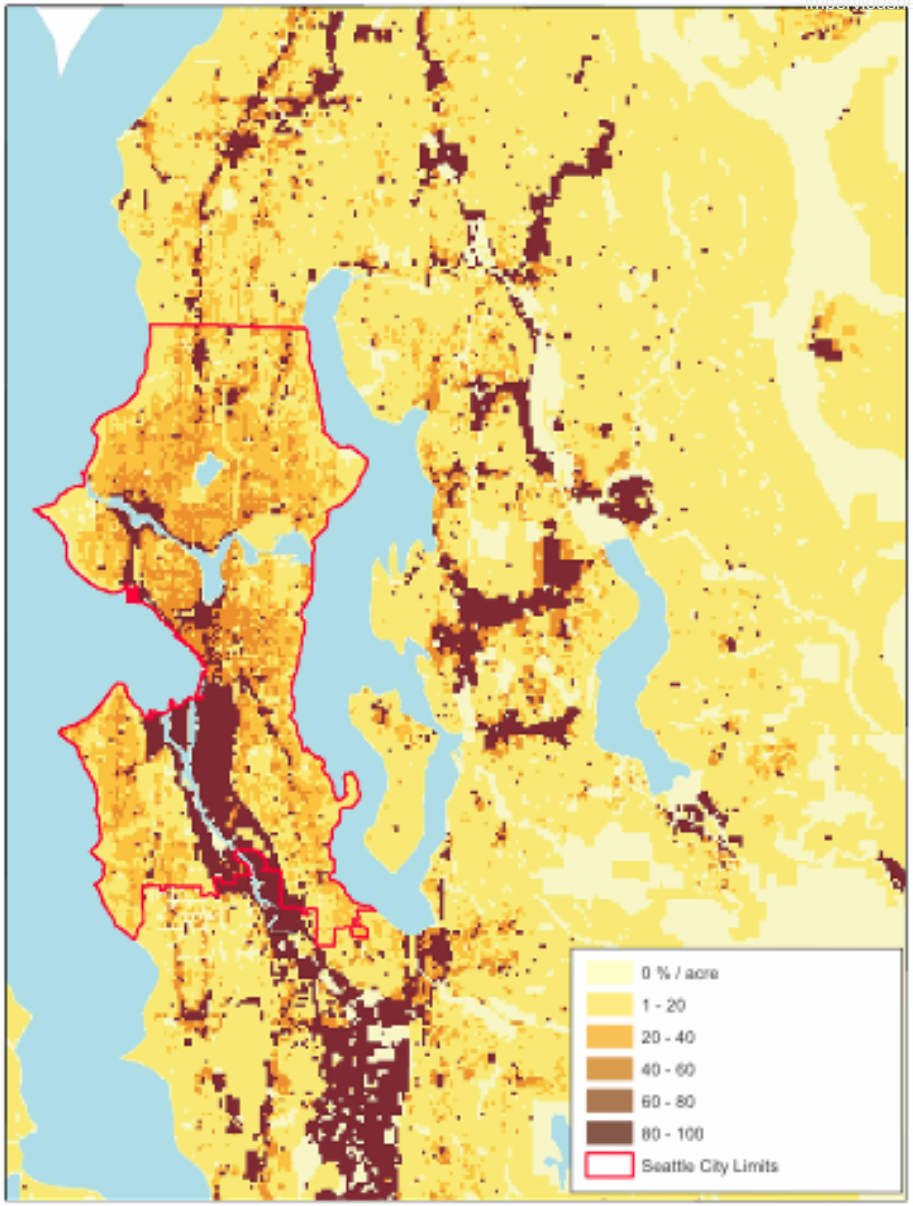
Protect Natural Infrastructure

Shrink the Development Footprint

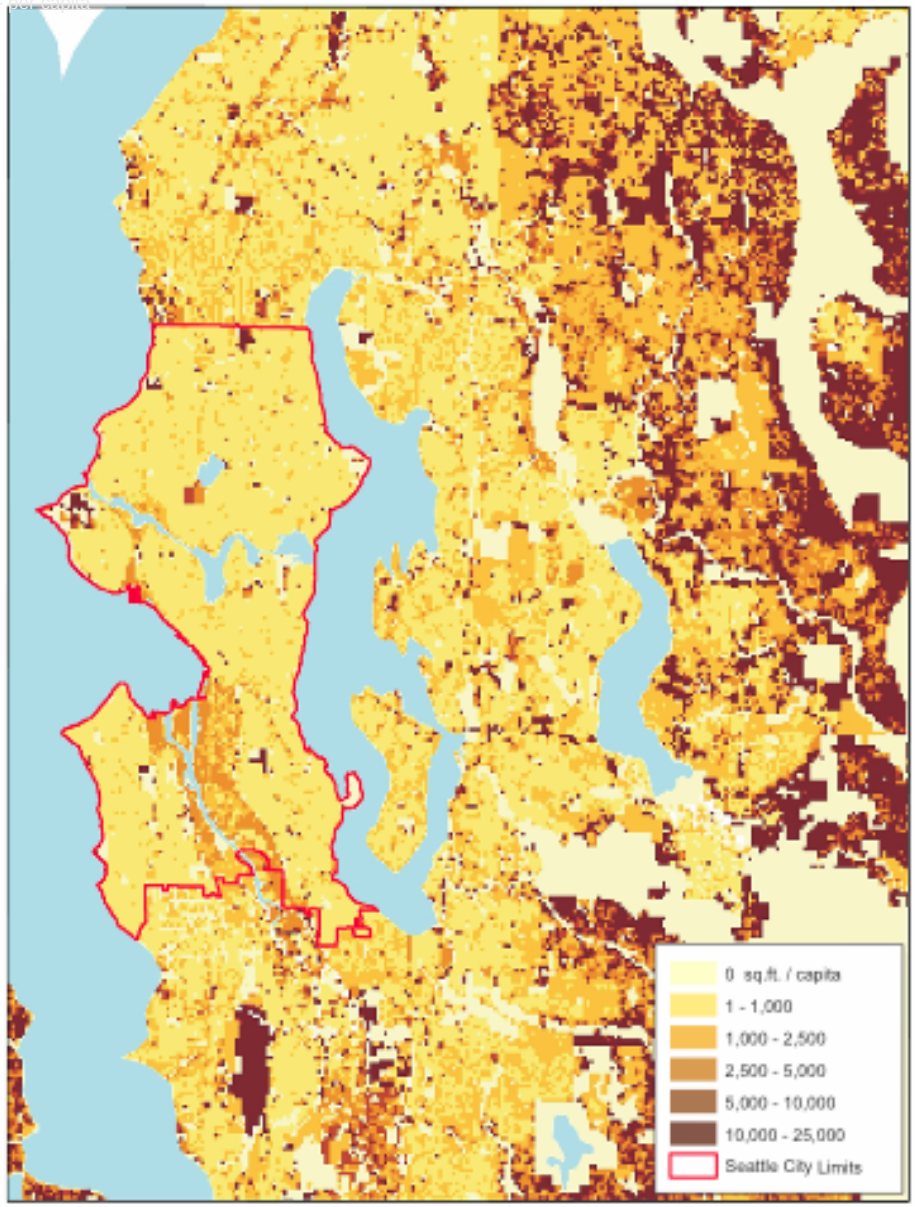
Which pattern is better for water?

Metropolitan Seattle Imperviousness

Per Acre

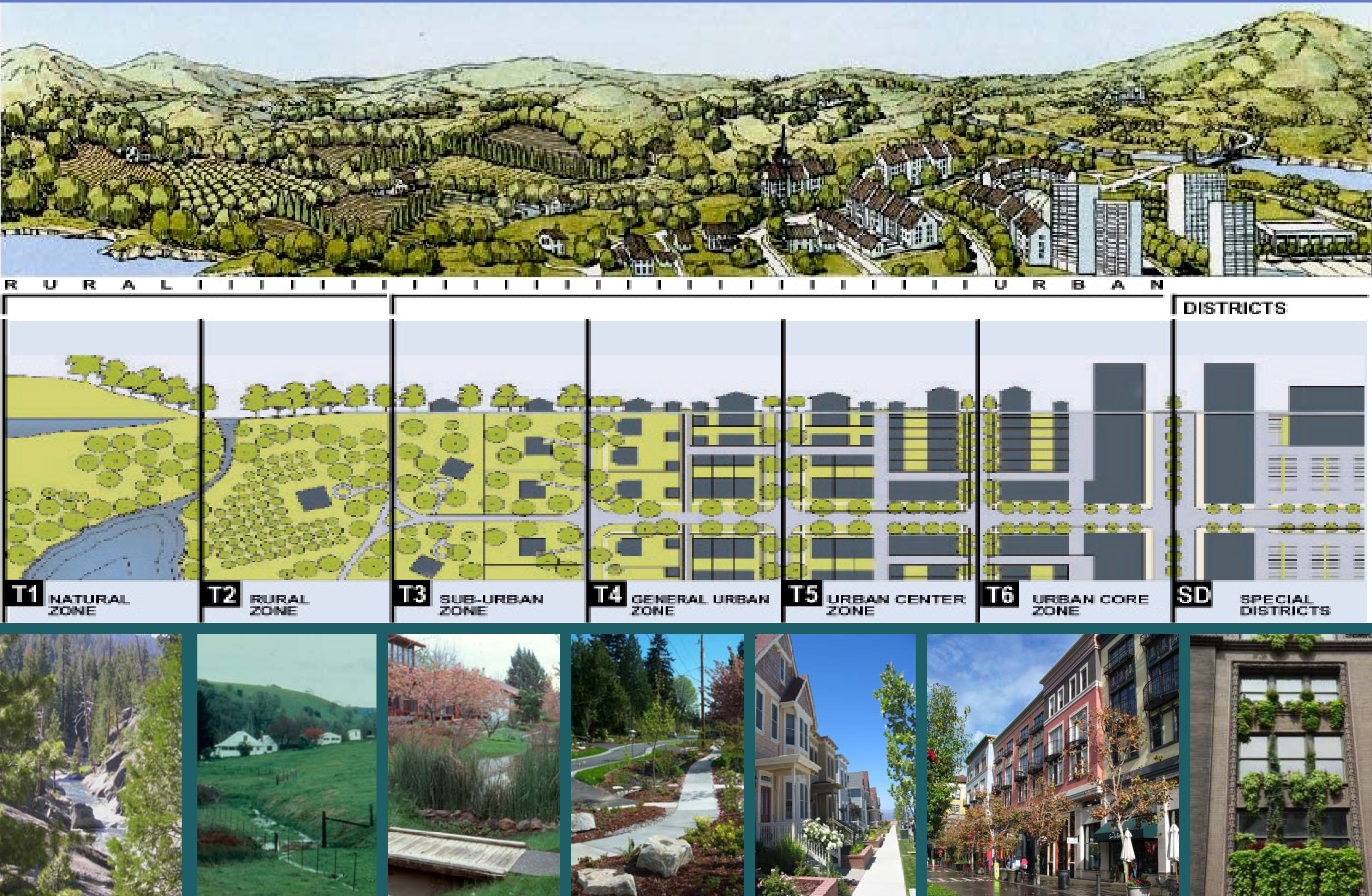


Per Capita



Source: Criterion Planners for the Puget Sound Regional Council

Scale and Development Context



Importance of Scale

Stormwater will be most deftly managed when the site, the neighborhood, district or community (subwatershed) and the region (watershed) are simultaneously considered for opportunities and impacts.

Same development pattern…… different scale.

Development Context

The Importance of Development Context

Should development on these sites be treated the same?

Need to recognize the differing environmental performance of different development patterns.

- – No measure of ecosystem services lost
- – Redevelopment of a one acre parking lot treated the same as bulldozing one acre of open space

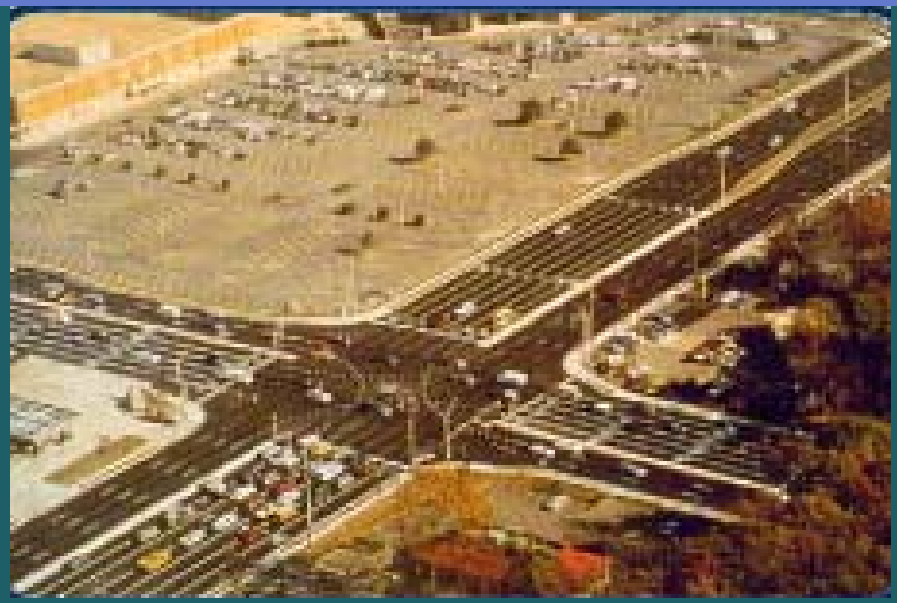
The Transportation Footprint

Reducing the overall development footprint requires closer attention to the role of transportation related impervious cover. Watershed efforts that fail to address the transportation footprint are likely to miss the largest source of impact.

What inflates the transportation footprint?

- Separation of uses
- Insufficient Density to Support Walking / Transit
- Parking Requirements
- Street Design
- Lack of Transportation Options
- Access and connectivity
- Lack of Jobs - Housing Balance

The Transportation Footprint



The Power of Redevelopment

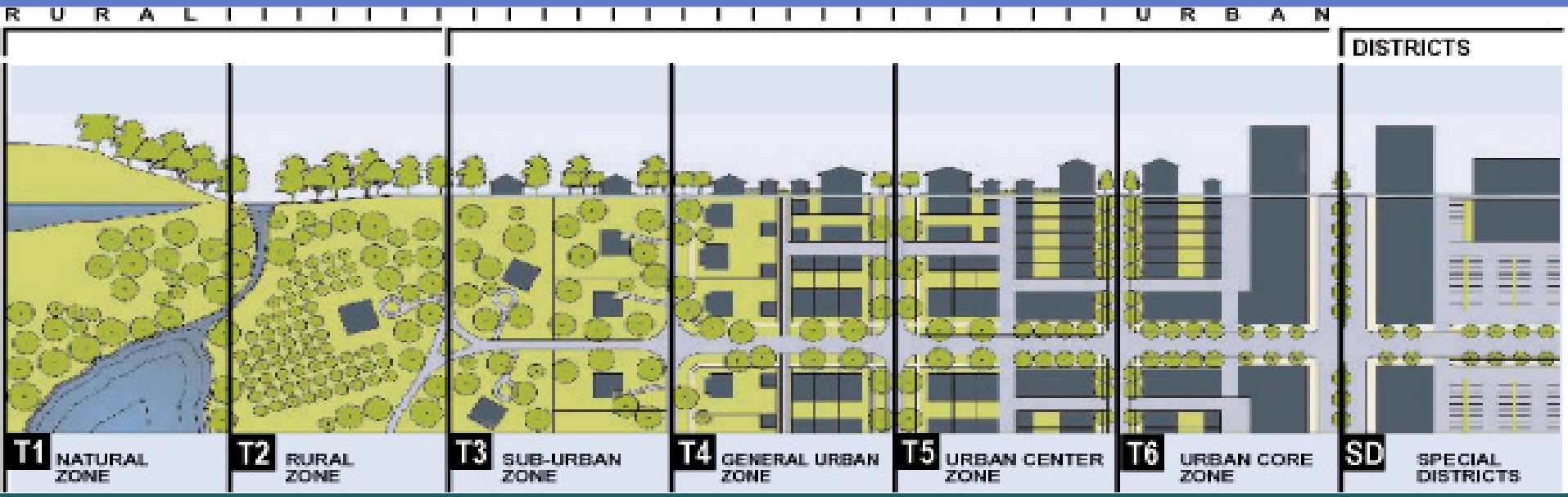
Redevelopment offers
multiple opportunities:

Prevention - recycle pavement
Restoration - retrofit practices
Revitalization - ecological/economic

Salishan, WA

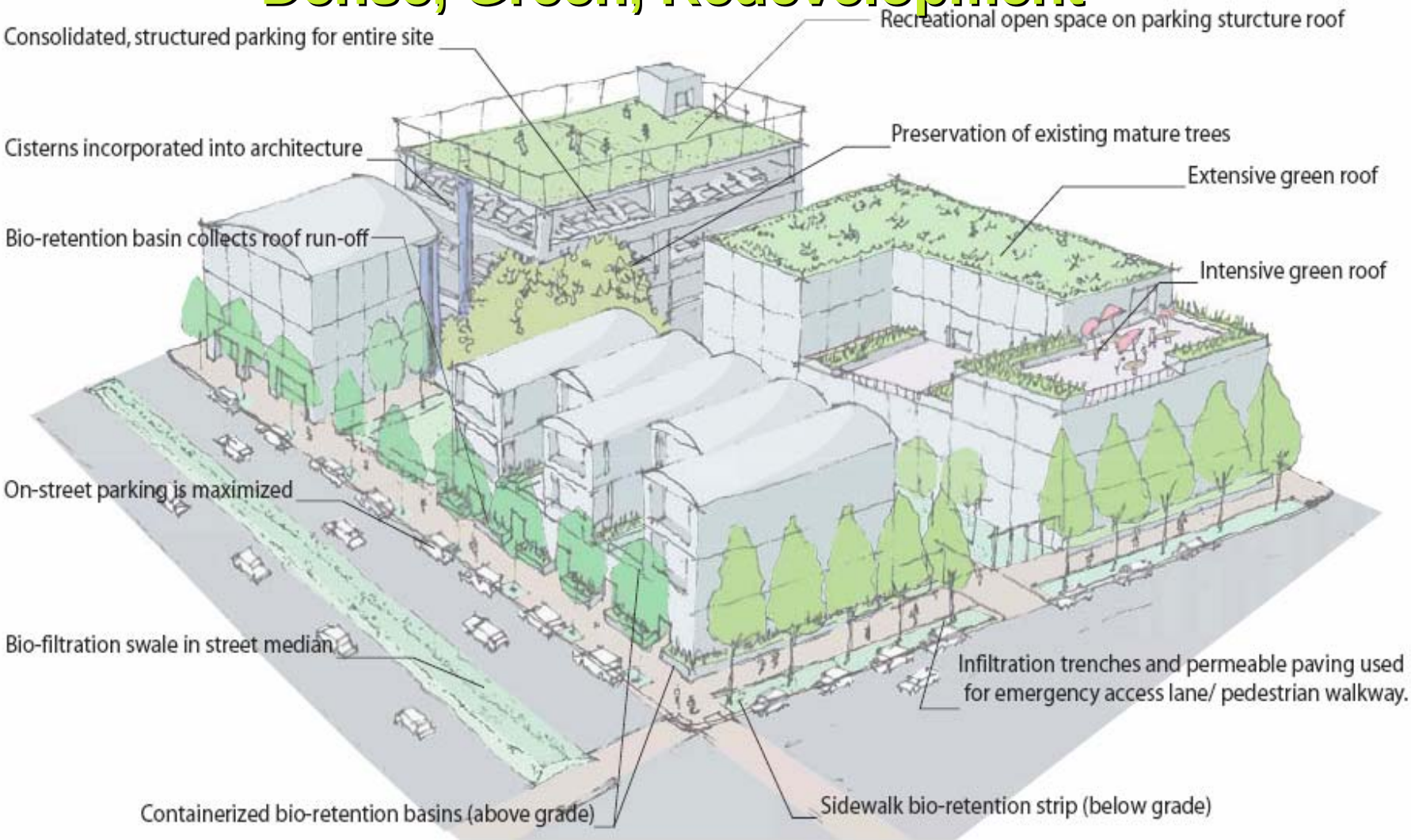
Thus, redevelopment is likely to play a large role in solving the urban runoff problem. It is critical to ***enable redevelopment*** so it can provide these benefits.

Coordination of Design Elements



Coordination of Design Elements

Dense, Green, Redevelopment



Code Review

We looked at:

- Open Space
- Compact Design
- Use Mix
- Infill and redevelopment
- Streets and Mobility
- Parking
- Environmental and Site Design

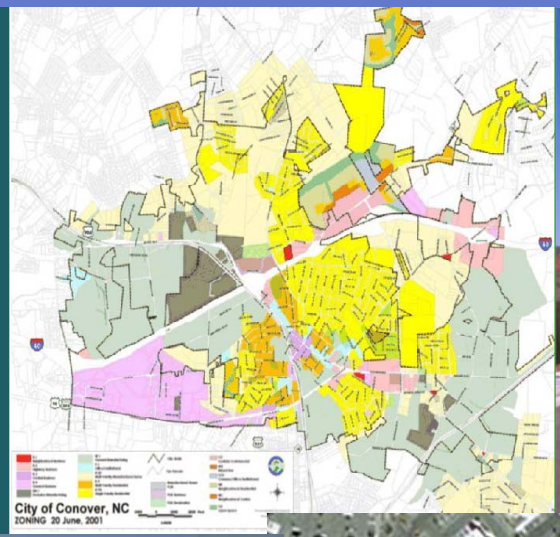
And asked…

1. Which codes drive excess impervious cover at the lot, neighborhood, district, community or regional level?

2. Conversely, which policies support a more compact, less ecologically disruptive development footprint?

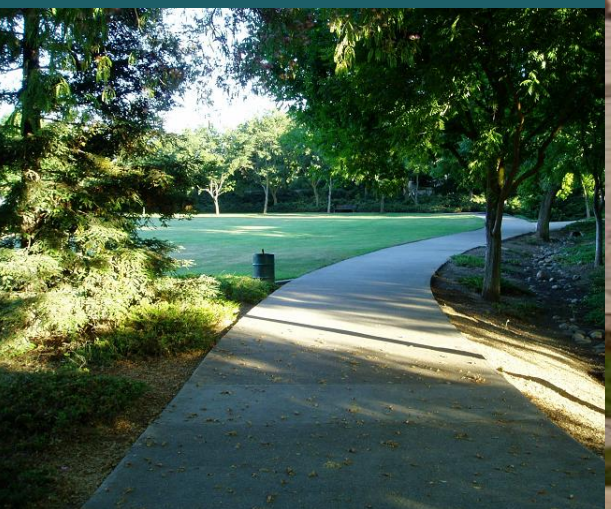
What Drives Impervious Cover?

Use Separation
Bulk Regulations
Streets Regulations
Parking Regulations
Barriers to infill and redevelopment



What Reduces Impervious Cover?

- Use Mix
- Open Space
- Recycle Pavement
- Infill
- Compact Design
- Mobility Options
- Parking
- Street Design



What Drives Impervious Cover?

Use Separation

This type of housing…

...is served by this type of retail, roads, and parking

The watershed's perspective

Mixing Uses

Researchers at Purdue University examined two possible project sites in the Chicago area and found that the hypothetical low density development on the urban fringe would produce 10 X the runoff the a mixed-use development in the urban core.

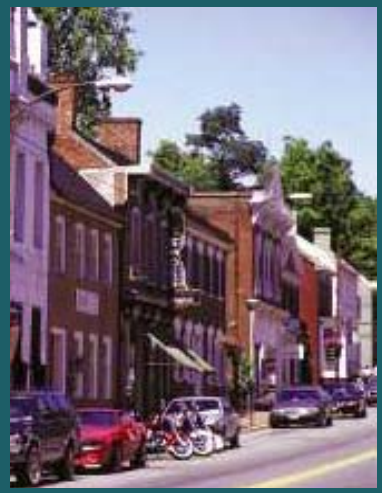
What Drives Impervious Cover?

Bulk Regulations (height, setbacks, frontage density, intensity)

Enabling Compact Form

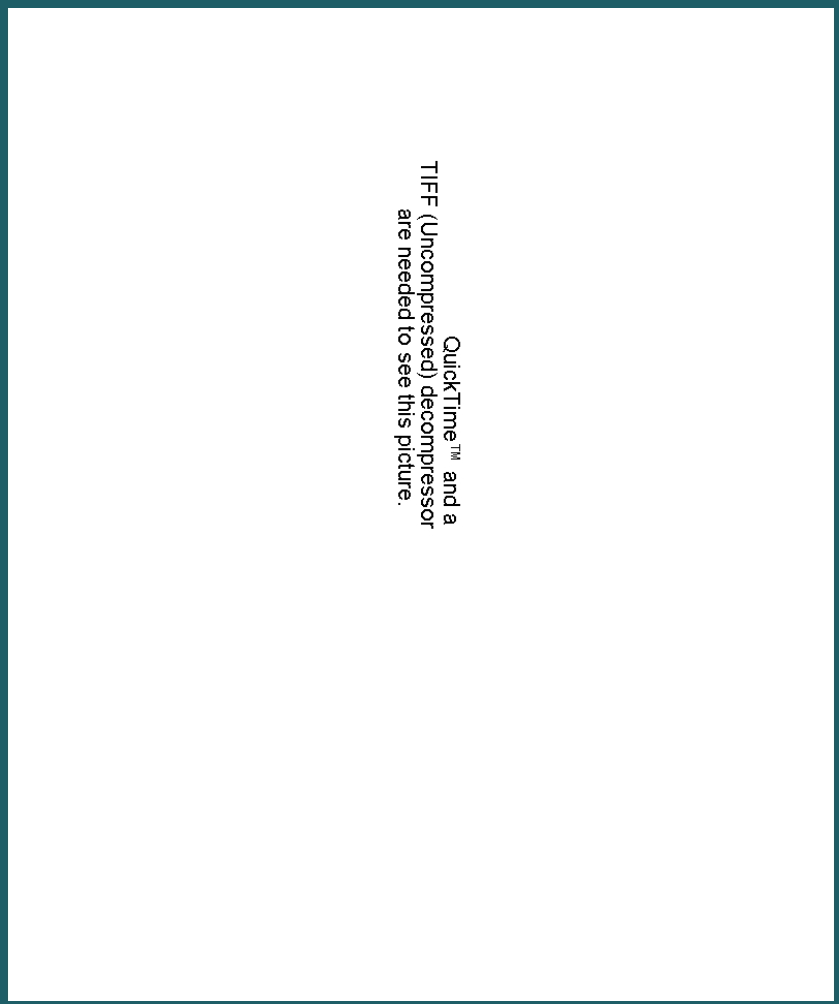
The Importance of Compactness

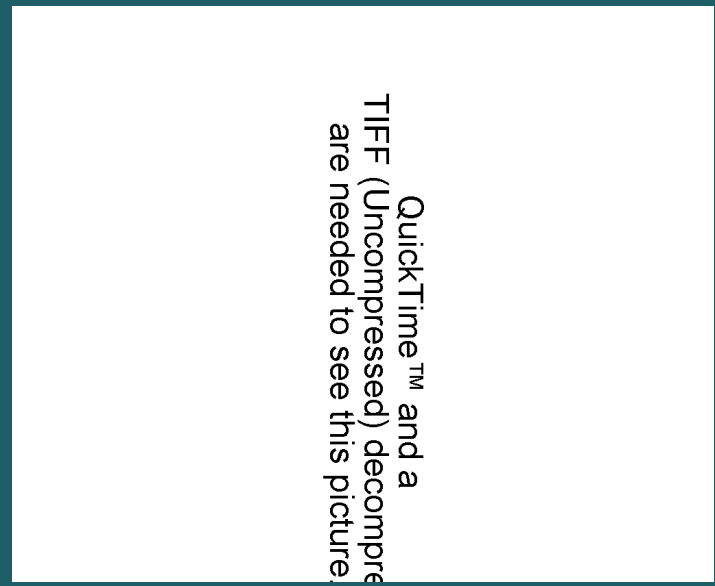
- minimize the development footprint
- minimize the transportation footprint
- enable alternatives to auto
- create market alternatives to “big box” commercial
- enable human contact
- dismantle sprawl
- efficient land use
- minimize water demands



Stormwater Benefits of High Density Development

Condominiums at Ionia





SW Benefits

Compact footprint

Pavement Reduction

Land conservation

- vertical density
- structured parking
- mixed use

Stormwater Benefits of High Density Development

Condominiums at Ionia

QuickTime™ and a
TIFF (Uncompressed) decompressor
are needed to see this picture.

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TIFF (Uncompressed) decompressor
are needed to see this picture.

95.3%

Runoff Reduction

The watershed's perspective

Redevelopment

A George Washington University study (2002) found that for every brownfield acre that is redeveloped, 4.5 acres of open space are preserved.

Analysis in King County, Washington, found enough vacant and eligible redevelopment property to accommodate 263,000 - 500,000 people.

Urban Design BMPs: Redevelopment

How would this development demand (225 residential units and GF retail) look out in the watershed?

Photo Simulation by Steve Price, Urban Advantage (www.urban-advantage.com)

Redevelopment recycles pavement

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Redevelopment recycles pavement

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Redevelopment recycles pavement

Urban Design BMPs: TOD, Mixed,Infill

Alhambra at S by:
Trammell Crow Residential

- 4.26 Acres
- 278 Condominium Units
  - (65 Units/acre)
- 4,486 sq. ft. of Retail
- 7-level Parking Garage
  - 420 Parking Spaces

How would this development demand (278 Units and 4,486 sq. ft. of retail, 420 Parking Spaces) look out in the watershed?

Urban Design BMPs: Mixed Use - Infill

- 176 Apartment Units (100 Units/Acre)
  - 47 Affordable Units
- 12,000 sq. ft. of Retail
- 2006 “Project of the Year” Business Journal

How would this development demand (176 Units and 12,000 sq. ft. of retail) look out in the watershed?

Urban Design BMP: Residential Infill

Capital Park Homes

Metro Square by: Saris Regis
45 Residential Units

- 25 du/ac
- 64 Single-family Town Homes
- Tuck-under Garage
- Work/Office on First Floor

How would 109 Units + Parking look out in the watershed?

What Drives Impervious Cover?

Parking
the watershed's perspective

Fixing parking:
Reduce the parking footprint - parking programs, reducing VMT, trip-making, walkability, transit
LID applications

What Drives Impervious Cover?

Street Design
the watershed's perspective

Watershed goals: connectivity, grid pattern, walkability, mobility options, geometry (width/length), paving materials.

Most codes require overly wide streets to enable higher design speeds.

Arterial streets shall be not less than 84 feet wide. Street width shall be between right-of- way lines.

- *Collector streets shall be not more than 84 feet wide.*
- *Industrial streets shall be not less than 74 feet wide.*
- *Generally, local streets shall be not less than 60 feet wide*

Streets and Parking

- permeable pavement -

The Ventura County Fire Protection District's Codes and Ordinances limits paving materials to asphalt and concrete in travel lanes.

Standard 14.6.9 on Alternative Pavers
"Alternate surface pavers are allowed on a limited case by case basis only… approved by the Fire Prevention Bureau and comply with all the requirements of this standard."

<http://fire.countyofventura.org/departmentservices/fireprevention/standards/standardsPDF%27s/14_6_9.pdf>

Open Space

Most codes focus on quantity, not quality. We have too much “meaningless” open space.

Meaningless Open Space?

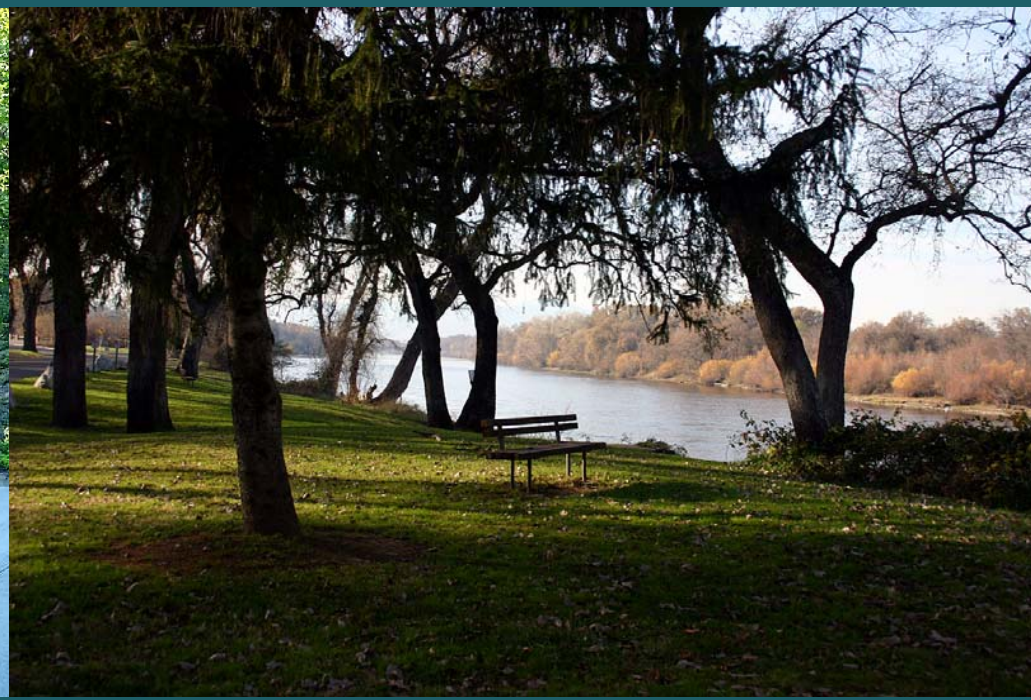
- screening, landscape strips, hedges, etc.
- OK when land is abundant, but not now

Meaningful Open Space?

- large connected areas
- ecologically / economically valuable areas
- social interaction
- multiple functions (drainage, play, connectivity, aesthetics)
- enables compact form
- provides “near-by” nature

Multi-functional parks and open space

~ floodplain+parks+habitat+open space+wetlands ~



Beyond the Site
Sustainable Urbanism & Stormwater Regs

Why a program for “alternative” compliance?

- Dismantle the components of sprawl (don’t add to them)
- Address transportation footprint/impacts
- Prevent imperviousness and land conversion
- Reduce the overall development footprint
- Avoid unintended consequences
- Attain a higher level of environmental performance
- Coordinate with other community objectives

R-What?

Redevelopment Project Area Master Plan

- A way to “credit” infill and redevelopment
- a defined planning area within a city (permittee)
- Must be approved by Regional Board
- Can receive “credit” inside the RPAMP
  - on-site requirements can be reduced

Permittee(s) or a coalition of … may apply to the Regional Board for approval of an (RPAMP) for … projects within Redevelopment Project Areas. RPAMP… may substitute in part or wholly for on -site requirements.

RPAMP


Sanjon Barranca
Main St.
Santa Clara St.
Thompson Blvd.
Prince Barranca
Seward Ave
City of Ventura
Urban Watershed

RPAMP


Sanjon Barranca
Main St.
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RPAMP


Main St
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RPAMP

Recognize sensitivity and target solutions for those sites

Inside an RPAMP

Credit design strategies that fit the development context

Infill & Redevelopment
Transit proximity
Mixed Use
Density
Streets and Parking

LID Techniques
-urban sites -
- retrofit prioritization -

City of Ventura
Urban Watershed

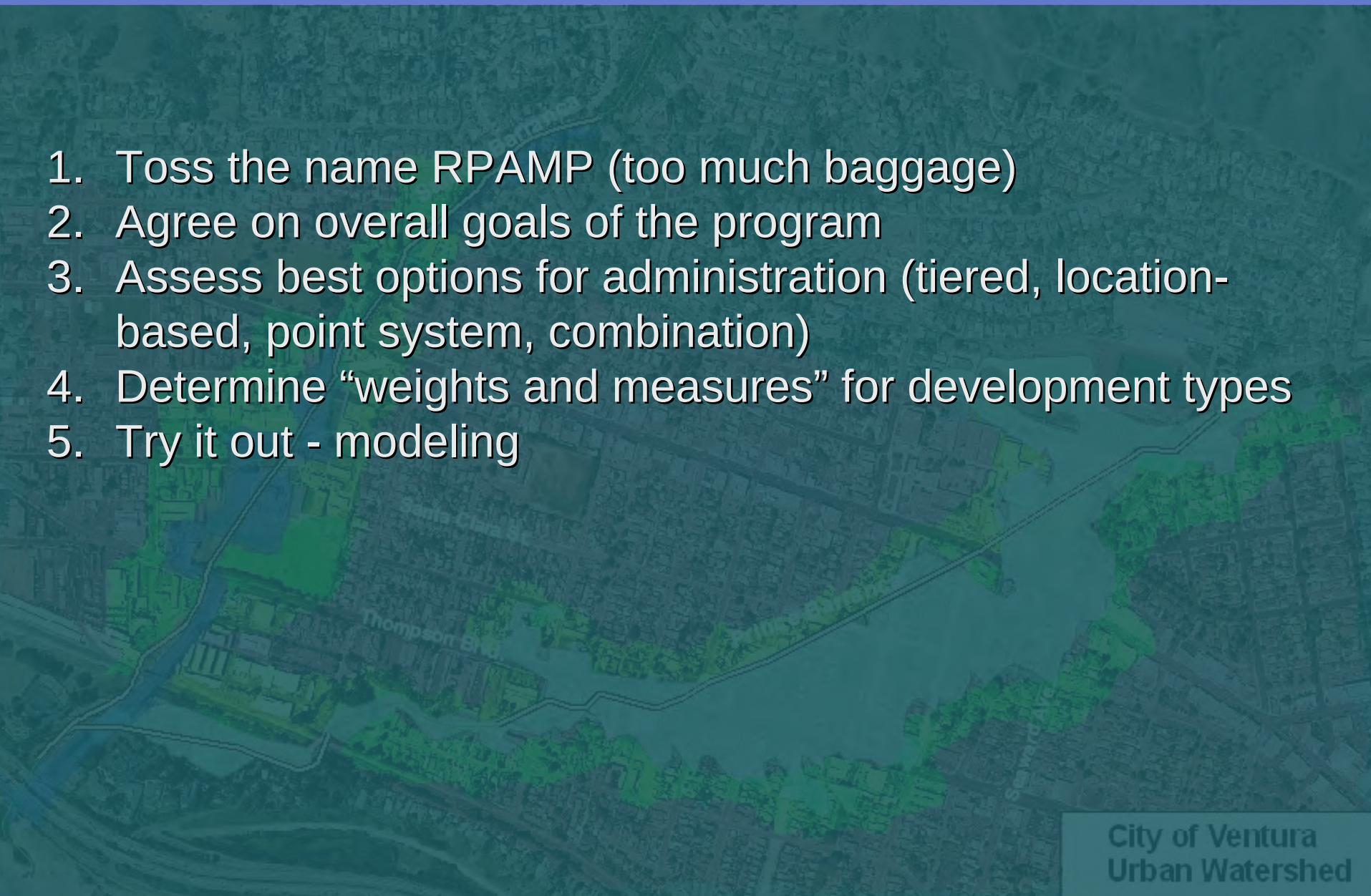
RPAMP Upsides & Downsides

Downsides:
Administrative Nightmare?
How big and where?
What are the performance thresholds?
What values for various development types?
Does not recognize good form in greenfield sites

Upsides:
Gets location, scale and context right
Could align with lieu fees for priority needs / retrofits
Could tee up shared drainage opportunities

Ideas for a successful program

1. Toss the name RPAMP (too much baggage)
2. Agree on overall goals of the program
3. Assess best options for administration (tiered, location-based, point system, combination)
4. Determine “weights and measures” for development types
5. Try it out - modeling



Thanks and Stay Tuned!

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